REMARKS

Please reconsider the present application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering the present application.

I. Disposition of Claims

Claims 1-14 are currently pending in the present application. By way of this reply, claims 2, 9, and 10 have been amended and claim 12 has been canceled without prejudice or disclaimer.

II. Claim Amendments

Claims 2 and 10 have been amended to replace the instance of "a peripheral region" with "an edge." No new matter has been added by way of these amendments as support for these amendments may be found, for example, in Figure 3b of the present application.

Claim 9 has been amended to insert the article "a" before the instance of "non-exterior." No new matter has been added by way of this amendment.

III. Objection(s) to the Claims

Claims 2, 9, and 10 were objected to as containing informalities. Particularly, claims 2 and 10 were objected for containing the language "peripheral region," which, according to the Examiner, was unclear in view of the limitations "exterior region" and "non-exterior region" recited in independent claims 1 and 9, from which claims 2 and 10

respectively depend. By way of this reply, claims 2 and 10 have been amended to replace the instance of "a peripheral region" with "an edge" so as to be clear with respect to the limitations "exterior region" and "non-exterior region." Thus, withdrawal of the objections to claims 2 and 10 is respectfully requested.

Further, claim 9 was objected to for not containing the article "a" before the instance of "non-exterior." By way of this reply, claim 9 has been amended to correct this minor informality. Thus, withdrawal of the objection to claim 9 is respectfully requested.

Further, claim 12 was objected to under 37 C.F.R. § 1.75(c) as being of improper dependent form for failing to further limit the subject matter of its base claim. By way of this reply, claim 12 has been canceled, and therefore, the objection to claim 12 is now moot.

IV. Rejection(s) Under 35 U.S.C § 102

Claims 1-10, 13, and 14 of the present application were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,127,880 issued to Holst et al. (hereinafter "Holst"). For the reasons set forth below, this rejection is respectfully traversed.

The present invention is generally directed to a design for reducing clock skew. A design in accordance with the present invention uses a clock driver disposed outside a region of a clock grid to drive a clock signal to clock grid connection points residing at non-exterior regions of the clock grid. Accordingly, independent claims 1, 5, 9, and 13 of the present application require, in part, that (i) the clock driver used to drive the clock

signal reside outside a region of the clock grid and (ii) the clock signal be driven from the clock driver **past** an exterior region of the clock grid to a connection point residing at a non-exterior region of the clock grid. For example, as shown in the exemplary embodiments of the present invention shown in Figures 4a and 5 of the present application, a clock driver **40**, which resides outside of a region of a clock grid **42**, drives a signal along interconnect **46** that go from an output of the clock driver **40 past** (or around or over) an exterior region of the clock grid **42** to a connection point residing at a non-exterior region of the clock grid **42**. Such an arrangement allows clock skew to be reduced (*see* Specification, paragraphs [0027]-[0028]; Figures 4a-4c of the present application) as opposed to arrangements in which a clock signal is propagated from a clock driver to an edge of a clock grid and then to non-exterior regions of the clock grid (*see* Specification, paragraphs [0005]-[0008]; Figures 3a-3d of the present application).

Holst, in contrast to the present invention, fails to disclose all the limitations recited in independent claims 1, 5, 9, and 13 of the present application. Figure 4 of Holst, as relied on in the Office Action of December 5, 2003, shows clock drivers **L0 406, L1 408, L2 410, L3 412**. With respect to clock drivers **L0 406, L1 408**, these clock drivers **L0 406, L1 408** actually reside *inside* a clock grid region as clearly shown in Figure 5 of Holst. Therefore, the clock drivers **L0 406, L1 408** do not meet the limitations of a clock driver as recited in independent claims 1, 5, 9, and 13, which require that the clock driver reside *outside* a region of the clock grid.

With respect to clock drivers **L2 410, L3 412** shown in Figure 4 of Holst and labeled in Figure 5 of Holst, to the extent that they are purported to be outside the meshed clock grid regions shown in Figure 5 of Holst, these clock drivers **L2, L3** do not drive a

clock signal **past** an exterior region of any of the meshed clock grid regions shown in Figure 5 of Holst (there is not one arrow in Figure 5 of Holst that indicates that a clock signal is being driven from the non-meshed clock grid regions between the meshed clock grid regions into one of the meshed clock grid regions; the signal to the PLL shown in Figure 5 of Holst does not come from the clock drivers **L2 410, L3 412** as clearly shown in Figure 4 of Holst).

In Figure 5 of Holst, the only clock signal that is shown to be driven past an exterior region of any meshed clock grid region, albeit not from outside any meshed clock grid region, comes from the top rightmost shown buffer (clock driver **NP** in Figure 4 of Holst), which inputs a clock signal from clock driver **L1** and drives a clock signal past an exterior region of the right meshed clock grid region to an opposite exterior region of the right meshed clock grid region. However, this buffer is located *inside* a clock grid region (*i.e.,* the middle meshed clock grid region shown in Figure 5 of Holst) and does not drive a clock signal to a connection point residing at a non-exterior region of any meshed clock grid region shown in Figure 5 of Holst; instead, this buffer drives a clock signal to an exterior region of a clock grid region (*i.e.*, the right exterior region of the right meshed clock grid region shown in Figure 5 of Holst).

Thus, Figures 4 and 5 of Holst, along with the remaining portions of Holst, fail to disclose or teach a clock driver that both (i) resides outside a region of a clock grid *and* (ii) drives a clock signal *past an exterior region* of the clock grid to a *connection point residing at a non-exterior region* of the clock grid as required by independent claims 1, 5, 9, and 13 of the present application.

In view of the above, Holst fails to show or suggest the present invention as

recited in independent claims 1, 5, 9, and 13 of the present application. Thus, independent claims 1, 5, 9, and 13 of the present application are patentable over Holst. Dependent claims are allowable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

V. Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 03226.136001;P6821).

Respectfully submitted,

Date: 1/16/04

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